

High School and Youth Trends

Trends in Use —————

Since 1975, the Monitoring the Future Survey (MTF) has annually studied the extent of drug abuse among high school 12th-graders. The survey was expanded in 1991 to include 8th- and 10th-graders. It is funded by NIDA and is conducted by the University of Michigan's Institute for Social Research. The goal of the survey is to collect data on 30-day, annual, and lifetime* drug use among students in these grade levels. This, the 30th annual study, was conducted during 2004.⁽¹⁾

Decreases or stability in use patterns were noted for the most part from 2003 to 2004. However, for the second year significant increases in inhalant abuse were seen among 8th-graders. Even a single session of repeated inhalant abuse can disrupt heart rhythms and cause death from cardiac arrest or lower oxygen levels enough to cause suffocation. Regular abuse of inhalants can result in serious damage to vital organs, including the brain, heart, kidneys, and liver. Please visit www.inhalants.drugabuse.gov for more information on the health effects of inhalants.

These are the key findings from the 2004 MTF:

- **Any illicit drug**—30-day use of any illicit drug decreased significantly among 8th-graders, from 9.7 percent in 2003 to 8.4 percent in 2004.
- **Inhalants**—Lifetime use of inhalants increased significantly among 8th-graders, from 15.8 percent in 2003 to 17.3 percent in 2004, continuing an upward trend in use noted among 8th-graders last year, after several years of decline. Since 2001, there appears to be a gradual decline among 8th-graders in the perceived risk of using inhalants.
- **Prescription Drugs**—Annual use of **Ritalin** and **Rohypnol** remained statistically unchanged for all grades from 2003 to 2004. Annual use of **Vicodin** and **OxyContin** remained stable among all grades, but at somewhat high levels. Annual use of Vicodin was at 2.5 percent for 8th-graders, 6.2 percent for 10th-graders, and 9.3 percent for 12th-graders. Annual use of OxyContin was at 1.7 percent for 8th-graders, 3.5 percent for 10th-graders, and 5.0 percent for 12th-graders.⁽²⁾

- **Marijuana**—30-day use of marijuana was down significantly among 8th-graders, from 7.5 percent in 2003 to 6.4 percent in 2004. Some strengthening of attitudes against marijuana use also occurred among 8th- and 10th-graders.
- **MDMA (Ecstasy)**—Lifetime use of MDMA decreased significantly for 10th-graders, from 5.4 percent in 2003 to 4.3 percent in 2004. Some strengthening of attitudes against use was seen among 10th- and 12th-graders. All grades had decreases in the perception of the availability of MDMA.
- **Methamphetamine**—Use decreased significantly among 8th-graders, from 3.9 percent in 2003 to 2.5 percent in 2004 for lifetime use; from 2.5 percent in 2003 to 1.5 percent in 2004 for annual use; and from 1.2 percent in 2003 to 0.6 percent in 2004 for 30-day use.
- **GHB and Ketamine**—Significant decreases in annual use were seen among 10th-graders for GHB, from 1.4 percent in 2003 to 0.8 percent in 2004, and Ketamine, from 1.9 percent in 2003 to 1.3 percent in 2004.
- **LSD**—Lifetime use of LSD decreased significantly among 12th-graders, from 5.9 percent in 2003 to 4.6 percent in 2004, continuing the pattern of decreases in LSD use noted in 2002 and 2003.
- **Anabolic Steroids**—Use of steroids decreased significantly among 8th-graders, from 2.5 percent in 2003 to 1.9 percent in 2004 for lifetime use and from 1.4 percent in 2003 to 1.1 percent in 2004 for annual use. Among 10th-graders, lifetime use decreased significantly, from 3.0 percent in 2003 to 2.4 percent in 2004, continuing the decrease in use among 10th-graders seen in 2003. Steroid use among 12th-graders, however, remained stable at peak levels.
- **Cocaine, other than Crack**—A significant increase in use of cocaine other than crack was seen among 10th-graders, from 1.1 percent in 2003 to 1.5 percent in 2004, for 30-day use. An increase in the perception of availability of all forms of cocaine was seen among 12th-graders.
- **Cigarettes/Nicotine**—Cigarette smoking decreased significantly among 10th-graders, from 43.0 percent in 2003 to 40.7 percent in 2004 for lifetime use and from 4.1 percent in 2003 to 3.3 percent in 2004 for those smoking one-half pack or more per day. The perception of harm from smoking one or more packs per day increased significantly among 8th- and 10th-graders from 2003 to 2004.
- **Alcohol, heroin, crack cocaine, hallucinogens other than LSD, PCP, amphetamines, tranquilizers, sedatives, and methaqualone** remained stable among all grades from 2003 to 2004.

Perceived Risk of Harm, Disapproval, & Perceived Availability

In addition to studying drug use among 8th-, 10th-, and 12th-graders, MTF collects information on three attitudinal indicators related to drug use. These are perceived risk of harm in taking a drug, disapproval of others who take drugs, and perceived availability of drugs.

The following POSITIVE attitudinal changes are from 2003 to 2004:

- **Marijuana**—Significant increases occurred among 8th-graders in perceived risk for regular marijuana use and for trying it once or twice. Additionally, disapproval of trying marijuana once or twice or smoking it occasionally increased significantly among 8th-graders. Among 10th-graders, disapproval of smoking marijuana occasionally or regularly increased significantly. Perceived availability of marijuana decreased significantly among 8th-graders.
- **Cigarettes/Nicotine**—The perceived risk associated with smoking one or more packs of cigarettes per day increased significantly among 8th- and 10th-graders. Perceived availability of cigarettes decreased significantly among 8th-graders.
- **MDMA (Ecstasy)**—Among 10th-graders, the perceived risk of taking MDMA occasionally increased significantly, as did their disapproval of trying MDMA once or twice. Among 12th-graders, disapproval of taking

MDMA once or twice increased significantly. Perceived availability of MDMA significantly decreased for all three grades.

- **Heroin**—A significant increase was noted in the percentage of 12th-graders who perceive risk in using heroin occasionally without a needle. Among 8th-graders, the perceived availability of heroin decreased significantly.
- **Alcohol**—Among 12th-graders, a significant increase was seen in the percentage perceiving risk in taking one or two drinks nearly every day.
- **Inhalants**—Among 10th-graders, a significant increase was seen in the percentage disapproving of using inhalants regularly.
- **LSD**—The perceived availability of LSD decreased significantly among 8th-graders. A significant increase was noted in the percentage of 12th-graders who disapprove of using LSD once or twice.
- **PCP**—The perceived availability of PCP decreased significantly among 8th-graders.
- **Cocaine and Crack**—The perceived availability of cocaine and crack decreased significantly among 8th-graders.
- The perceived availability of **narcotics other than heroin, amphetamines, crystal methamphetamine (ice), tranquilizers, alcohol, and steroids** decreased significantly among 8th-graders.

The following *NEGATIVE* attitudinal changes are from 2003 to 2004:

- **Heroin**—A significant decrease was noted in the percentage of 12th-graders who perceive risk in using heroin regularly.
- **LSD**—A significant decrease occurred in the percentage of 8th-graders who disapprove of taking LSD regularly.

- **Inhalants**—The gradual decline among 8th-graders since 2001 in the perceived risk of using inhalants continued from 2003 to 2004.
- **Cocaine**—An increase in the perception of availability of all forms of cocaine was seen among 12th-graders.

(1) For the 2004 MTF, 49,474 students in a nationally representative sample of 406 public and private schools were surveyed about lifetime, annual, 30-day, and daily use of drugs, alcohol, and cigarettes and smokeless tobacco. The latest data are online at www.drugabuse.gov.

(2) For more information on the misuse or nonmedical use of pain medications or other prescription drugs, please visit www.drugabuse.gov and click on Prescription Medications under Drugs of Abuse.

Bracketed figures in the tables below indicate a significant change between 2003 and 2004.

Monitoring the Future Study: Trends in Prevalence of Various Drugs for 8th-Graders, 10th-Graders, and 12th-Graders*

2002-2004

	8th-Graders			10th-Graders			12th-Graders		
	2002	2003	2004	2002	2003	2004	2002	2003	2004
Any Illicit Drug Use									
lifetime	24.5	22.8	21.5	44.6	41.4	39.8	53.0	51.1	51.1
annual	17.7	16.1	15.2	34.8	32.0	31.1	41.0	39.3	38.8
30-day	10.4	9.7	[8.4]	20.8	19.5	18.3	25.4	24.1	23.4
Marijuana/Hashish									
lifetime	19.2	17.5	16.3	38.7	36.4	35.1	47.8	46.1	45.7
annual	14.6	12.8	11.8	30.3	28.2	27.5	36.2	34.9	34.3
30-day	8.3	7.5	[6.4]	17.8	17.0	15.9	21.5	21.2	19.9
daily	1.2	1.0	0.8	3.9	3.6	3.2	6.0	6.0	5.6
Inhalants									
lifetime	15.2	15.8	[17.3]	13.5	12.7	12.4	11.7	11.2	10.9
annual	7.7	8.7	9.6	5.8	5.4	5.9	4.5	3.9	4.2
30-day	3.8	4.1	4.5	2.4	2.2	2.4	1.5	1.5	1.5
Hallucinogens**									
lifetime	4.1	4.0	3.5	7.8	6.9	6.4	12.0	10.6	9.7
annual	2.6	2.6	2.2	4.7	4.1	4.1	6.6	5.9	6.2
30-day	1.2	1.2	1.0	1.6	1.5	1.6	2.3	1.8	1.9

(Cont'd)

		8th-Graders			10th-Graders			12th-Graders		
		2002	2003	2004	2002	2003	2004	2002	2003	2004
LSD										
	lifetime	2.5	2.1	1.8	5.0	3.5	2.8	8.4	5.9	[4.6]
	annual	1.5	1.3	1.1	2.6	1.7	1.6	3.5	1.9	2.2
	30-day	0.7	0.6	0.5	0.7	0.6	0.6	0.7	0.6	0.7
Cocaine										
	lifetime	3.6	3.6	3.4	6.1	5.1	5.4	7.8	7.7	8.1
	annual	2.3	2.2	2.0	4.0	3.3	3.7	5.0	4.8	5.3
	30-day	1.1	0.9	0.9	1.6	1.3	1.7	2.3	2.1	2.3
Crack Cocaine										
	lifetime	2.5	2.5	2.4	3.6	2.7	2.6	3.8	3.6	3.9
	annual	1.6	1.6	1.3	2.3	1.6	1.7	2.3	2.2	2.3
	30-day	0.8	0.7	0.6	1.0	0.7	0.8	1.2	0.9	1.0
Heroin										
	lifetime	1.6	1.6	1.6	1.8	1.5	1.5	1.7	1.5	1.5
	annual	0.9	0.9	1.0	1.1	0.7	0.9	1.0	0.8	0.9
	30-day	0.5	0.4	0.5	0.5	0.3	0.5	0.5	0.4	0.5
Tranquilizers***										
	lifetime	4.3	4.4	4.0	8.8	7.8	7.3	11.4	10.2	10.6
	annual	2.6	2.7	2.5	6.3	5.3	5.1	7.7	6.7	7.3
	30-day	1.2	1.4	1.2	2.9	2.4	2.3	3.3	2.8	3.1
Alcohol										
	lifetime	47.0	45.6	43.9	66.9	66.0	64.2	78.4	76.6	76.8
	annual	38.7	37.2	36.7	60.0	59.3	58.2	71.5	70.1	70.6
	30-day	19.6	19.7	18.6	35.4	35.4	35.2	48.6	47.5	48.0
	daily	0.7	0.8	0.6	1.8	1.5	1.3	3.5	3.2	2.8
Cigarettes (any use)										
	lifetime	31.4	28.4	27.9	47.4	43.0	[40.7]	57.2	53.7	52.8
	30-day	10.7	10.2	9.2	17.7	16.7	16.0	26.7	24.4	25.0
	1/2 pack+/day	2.1	1.8	1.7	4.4	4.1	[3.3]	9.1	8.4	8.0
Smokeless Tobacco										
	lifetime	11.2	11.3	11.0	16.9	14.6	13.8	18.3	17.0	16.7
	30-day	3.3	4.1	4.1	6.1	5.3	4.9	6.5	6.7	6.7
	daily	0.8	0.8	1.0	1.7	1.8	1.6	2.0	2.2	2.8
Steroids										
	lifetime	2.5	2.5	[1.9]	3.5	3.0	[2.4]	4.0	3.5	3.4
	annual	1.5	1.4	[1.1]	2.2	1.7	1.5	2.5	2.1	2.5
	30-day	0.8	0.7	0.5	1.0	0.8	0.8	1.4	1.3	1.6

(Cont'd)

		8th-Graders			10th-Graders			12th-Graders		
		2002	2003	2004	2002	2003	2004	2002	2003	2004
MDMA										
lifetime		4.3	3.2	2.8	6.6	5.4	[4.3]	10.5	8.3	7.5
annual		2.9	2.1	1.7	4.9	3.0	2.4	7.4	4.5	4.0
30-day		1.4	0.7	0.8	1.8	1.1	0.8	2.4	1.3	1.2
Methamphetamine										
lifetime		3.5	3.9	[2.5]	6.1	5.2	5.3	6.7	6.2	6.2
annual		2.2	2.5	[1.5]	3.9	3.3	3.0	3.6	3.2	3.4
30-day		1.1	1.2	[0.6]	1.8	1.4	1.3	1.7	1.7	1.4

Monitoring the Future Study: Trends in Prevalence of Various Drugs for 8th-Graders, 10th-Graders, and 12th-Graders*

1999-2001

		8th-Graders			10th-Graders			12th-Graders		
		1999	2000	2001	1999	2000	2001	1999	2000	2001
Any Illicit Drug Use										
lifetime		28.3	26.8	26.8	46.2	45.6	45.6	54.7	54.0	53.9
annual		20.5	19.5	19.5	35.9	36.4	37.2	42.1	40.9	41.4
30-day		12.2	11.9	11.7	22.1	22.5	22.7	25.9	24.9	25.7
Marijuana/Hashish										
lifetime		22.0	20.3	20.4	40.9	40.3	40.1	49.7	48.8	49.0
annual		16.5	15.6	15.4	32.1	32.2	32.7	37.8	36.5	37.0
30-day		9.7	9.1	9.2	19.4	19.7	19.8	23.1	21.6	22.4
daily		1.4	1.3	1.3	3.8	3.8	4.5	6.0	6.0	5.8
Inhalants										
lifetime		19.7	17.9	17.1	17.0	16.6	15.2	15.4	14.2	13.0
annual		10.3	9.4	9.1	7.2	7.3	6.6	5.6	5.9	4.5
30-day		5.0	4.5	4.0	2.6	2.6	2.4	2.0	2.2	1.7
Hallucinogens**										
lifetime		4.8	4.6	5.2	9.7	8.9	8.9	13.7	13.0	14.7
annual		2.9	2.8	3.4	6.9	6.1	6.2	9.4	8.1	9.1
30-day		1.3	1.2	1.6	2.9	2.3	2.1	3.5	2.6	3.3
LSD										
lifetime		4.1	3.9	3.4	8.5	7.6	6.3	12.2	11.1	10.9
annual		2.4	2.4	2.2	6.0	5.1	4.1	8.1	6.6	6.6
30-day		1.1	1.0	1.0	2.3	1.6	1.5	2.7	1.6	2.3

(Cont'd)

		8th-Graders			10th-Graders			12th-Graders		
		1999	2000	2001	1999	2000	2001	1999	2000	2001
Cocaine										
lifetime		4.7	4.5	4.3	7.7	6.9	5.7	9.8	8.6	8.2
annual		2.7	2.6	2.5	4.9	4.4	3.6	6.2	5.0	4.8
30-day		1.3	1.2	1.2	1.8	1.8	1.3	2.6	2.1	2.1
Crack Cocaine										
lifetime		3.1	3.1	3.0	4.0	3.7	3.1	4.6	3.9	3.7
annual		1.8	1.8	1.7	2.4	2.2	1.8	2.7	2.2	2.1
30-day		0.8	0.8	0.8	0.8	0.9	0.7	1.1	1.0	1.1
Heroin										
lifetime		2.3	1.9	1.7	2.3	2.2	1.7	2.0	2.4	1.8
annual		1.4	1.1	1.0	1.4	1.4	0.9	1.1	1.5	0.9
30-day		0.6	0.5	0.6	0.7	0.5	0.3	0.5	0.7	0.4
Tranquilizers***										
lifetime		4.4	4.4	5.0	7.9	8.0	9.2	9.3	8.9	10.3
annual		2.5	2.6	2.8	5.4	5.6	7.3	5.8	5.7	6.9
30-day		1.1	1.4	1.2	2.2	2.5	2.9	2.5	2.6	2.9
Alcohol										
lifetime		52.1	51.7	50.5	70.6	71.4	70.1	80.0	80.3	79.7
annual		43.5	43.1	41.9	63.7	65.3	63.5	73.8	73.2	73.3
30-day		24.0	22.4	21.5	40.0	41.0	39.0	51.0	50.0	49.8
daily		1.0	0.8	0.9	1.9	1.8	1.9	3.4	2.9	3.6
Cigarettes (any use)										
lifetime		44.1	40.5	36.6	57.6	55.1	52.8	64.6	62.5	61.0
30-day		17.5	14.6	12.2	25.7	23.9	21.3	34.6	31.4	29.5
1/2 pack+/day		3.3	2.8	2.3	7.6	6.2	5.5	13.2	11.3	10.3
Smokeless Tobacco										
lifetime		14.4	12.8	11.7	20.4	19.1	19.5	23.4	23.1	19.7
30-day		4.5	4.2	4.0	6.5	6.1	6.9	8.4	7.6	7.8
daily		0.9	0.9	1.2	1.5	1.9	2.2	2.9	3.2	2.8
Steroids										
lifetime		2.7	3.0	2.8	2.7	3.5	3.5	2.9	2.5	3.7
annual		1.7	1.7	1.6	1.7	2.2	2.1	1.8	1.7	2.4
30-day		0.7	0.8	0.7	0.9	1.0	0.9	0.9	0.8	1.3
MDMA										
lifetime		2.7	4.3	5.2	6.0	7.3	8.0	8.0	11.0	11.7
annual		1.7	3.1	3.5	4.4	5.4	6.2	5.6	8.2	9.2
30-day		0.8	1.4	1.8	1.8	2.6	2.6	2.5	3.6	2.8

Monitoring the Future Study: Trends in Prevalence of Various Drugs for 8th-Graders, 10th-Graders, and 12th-Graders*

1996-1998

	8th-Graders			10th-Graders			12th-Graders		
	1996	1997	1998	1996	1997	1998	1996	1997	1998
Any Illicit Drug Use									
lifetime	31.2	29.4	29.0	45.4	47.3	44.9	50.8	54.3	54.1
annual	23.6	22.1	21.0	37.5	38.5	35.0	40.2	42.4	41.4
30-day	14.6	12.9	12.1	23.2	23.0	21.5	24.6	26.2	25.6
Marijuana/Hashish									
lifetime	23.1	22.6	22.2	39.8	42.3	39.6	44.9	49.6	49.1
annual	18.3	17.7	16.9	33.6	34.8	31.1	35.8	38.5	37.5
30-day	11.3	10.2	9.7	20.4	20.5	18.7	21.9	23.7	22.8
daily	1.5	1.1	1.1	3.5	3.7	3.6	4.9	5.8	5.6
Inhalants									
lifetime	21.2	21.0	20.5	19.3	18.3	18.3	16.6	16.1	15.2
annual	12.2	11.8	11.1	9.5	8.7	8.0	7.6	6.7	6.2
30-day	5.8	5.6	4.8	3.3	3.0	2.9	2.5	2.5	2.3
Hallucinogens									
lifetime	5.9	5.4	4.9	10.5	10.5	9.8	14.0	15.1	14.1
annual	4.1	3.7	3.4	7.8	7.6	6.9	10.1	9.8	9.0
30-day	1.9	1.8	1.4	2.8	3.3	3.2	3.5	3.9	3.8
LSD									
lifetime	5.1	4.7	4.1	9.4	9.5	8.5	12.6	13.6	12.6
annual	3.5	3.2	2.8	6.9	6.7	5.9	8.8	8.4	7.6
30-day	1.5	1.5	1.1	2.4	2.8	2.7	2.5	3.1	3.2
Cocaine									
lifetime	4.5	4.4	4.6	6.5	7.1	7.2	7.1	8.7	9.3
annual	3.0	2.8	3.1	4.2	4.7	4.7	4.9	5.5	5.7
30-day	1.3	1.1	1.4	1.7	2.0	2.1	2.0	2.3	2.4
Crack Cocaine									
lifetime	2.9	2.7	3.2	3.3	3.6	3.9	3.3	3.9	4.4
annual	1.8	1.7	2.1	2.1	2.2	2.5	2.1	2.4	2.5
30-day	0.8	0.7	0.9	0.8	0.9	1.1	1.0	0.9	1.0
Heroin									
lifetime	2.4	2.1	2.3	2.1	2.1	2.3	1.8	2.1	2.0
annual	1.6	1.3	1.3	1.2	1.4	1.4	1.0	1.2	1.0
30-day	0.7	0.6	0.6	0.5	0.6	0.7	0.5	0.5	0.5
Tranquilizers									
lifetime	5.3	4.8	4.6	7.1	7.3	7.8	7.2	7.8	8.5
annual	3.3	2.9	2.6	4.6	4.9	5.1	4.6	4.7	5.5
30-day	1.5	1.2	1.2	1.7	2.2	2.2	2.0	1.8	2.4

(Cont'd)

	8th-Graders			10th-Graders			12th-Graders		
	1996	1997	1998	1996	1997	1998	1996	1997	1998
Alcohol									
lifetime	55.3	53.8	52.5	71.8	72.0	69.8	79.2	81.7	81.4
annual	46.5	45.5	43.7	65.0	65.2	62.7	72.5	74.8	74.3
30-day	26.2	24.5	23.0	40.4	40.1	38.8	50.8	52.7	52.0
daily	1.0	0.8	0.9	1.6	1.7	1.9	3.7	3.9	3.9
Cigarettes (any use)									
lifetime	49.2	47.3	45.7	61.2	60.2	57.7	63.5	65.4	65.3
30-day	21.0	19.4	19.1	30.4	29.8	27.6	34.0	36.5	35.1
1/2 pack+/day	4.3	3.5	3.6	9.4	8.6	7.9	13.0	14.3	12.6
Smokeless Tobacco									
lifetime	20.4	16.8	15.0	27.4	26.3	22.7	29.8	25.3	26.2
30-day	7.1	5.5	4.8	8.6	8.9	7.5	9.8	9.7	8.8
daily	1.5	1.0	1.0	2.2	2.2	2.2	3.3	4.4	3.2
Steroids									
lifetime	1.8	1.8	2.3	1.8	2.0	2.0	1.9	2.4	2.7
annual	0.9	1.0	1.2	1.2	1.2	1.2	1.4	1.4	1.7
30-day	0.4	0.5	0.5	0.5	0.7	0.6	0.7	1.0	1.1
MDMA									
lifetime	3.4	3.2	2.7	5.6	5.7	5.1	6.1	6.9	5.8
annual	2.3	2.3	1.8	4.6	3.9	3.3	4.6	4.0	3.6
30-day	1.0	1.0	0.9	1.8	1.3	1.3	2.0	1.6	1.5

* "Lifetime" refers to use at least once during a respondent's lifetime. "Annual" refers to an individual's drug use at least once during the year preceding their response to the survey. "30-day" refers to an individual's drug use at least once during the month preceding their response to the survey.

** For hallucinogens, in 2001 "other psychedelics" was changed to "other hallucinogens" on the MTF survey forms, and mushrooms ("shrooms") was added. For 2001, half the students sampled received the original survey question and the other half the revised question. To trend the findings from 2000 to 2001, the researchers used the old item in the 2001 data; to trend from 2001 to 2002, they used the new item. In the table above, the researchers show a break between 2000 and 2001, indicating a technical discontinuity.

*** For tranquilizers, in 2001 "Miltown" was removed and "Xanax" was added on the MTF survey forms. For 2001, half the students sampled received the original survey question and the other half the revised question. To trend the findings from 2000 to 2001, the researchers used the old item in the 2001 data; to trend from 2001 to 2002, they used the new item. In the table above, the researchers show a break between 2000 and 2001, indicating a technical discontinuity.

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